時田 郁*: 海藻知見 (3)

Jun TOKIDA: Notes on Some New or Little Known Marine Algae (3).

3. **Ceramium cimbricum** Petersen in Rosenvinge, Marine Algae of Denmark, 3: 378, figs. 318, 319, (1923/24).

"Frond sometimes creeping, subdichotomously branched, branch apices straight, elongate, often unequal in length; cortical bands always distant from each other, not prominent on the margin, consisting of a few cells, usually 2～3 cells high, the largest bands 50 μ high, 100 μ broad, others 1～2 cells high, ca. 25 μ high, 50 μ broad, the lower cortical cells often up to 32 μ broad; the largest internodes 5～7 times as long as the breadth of the band. Color reddish violet. Hairs, tetrasporangia and sexual organs not observed." (Figs. 10～28).

Japanese name. *Matsubara-igisu* (n. n.)

Habitat. Epiphytic on the thallus of young *Laminaria* growing on *Ahnfeltia plicata* var. *tobuchiensis* or directly on that of the latter (in Lake Tôbuchi), or epizoic on *Potamilla myriops* Marenzeller (at Kaiba-tô). Kaiba-tô (Tokida, Sept. 1943), Tôbuchiko or Lake Busse (Tokida, Aug. 1929; Matsubara, July 1930), both in southern Saghalien.

Distribution. Southern Saghalien; Denmark.

The above description of the species is a translation of the original Latin diagnosis given by Petersen. The type specimens of this interesting *Ceramium* are said to have been collected at two localities in the Liim Fiord in the Peninsula of Jtland, Denmark; they were "found growing on *Leomedea* (Coelenterata) and on various algae, partly creeping with rhizoids, reaching a length of 1～3 cm." The Saghalien specimens which the writer refers to the present species agree very well in general aspects with the description and figures of *Ceramium cimbricum* given by Petersen and by Rosenvinge.

The basal holdfast was once observed by the writer in a small individual attached on a lower axial segment of *Antithamnion sparsum* Tokida (Fig. 15). It is composed of a few filamentous short cells given off radially from the undermost axial cell. The branch apices are generally erect, but sometimes slightly curved inwards at the tip; they are usually unequal in length but sometimes nearly equal. The

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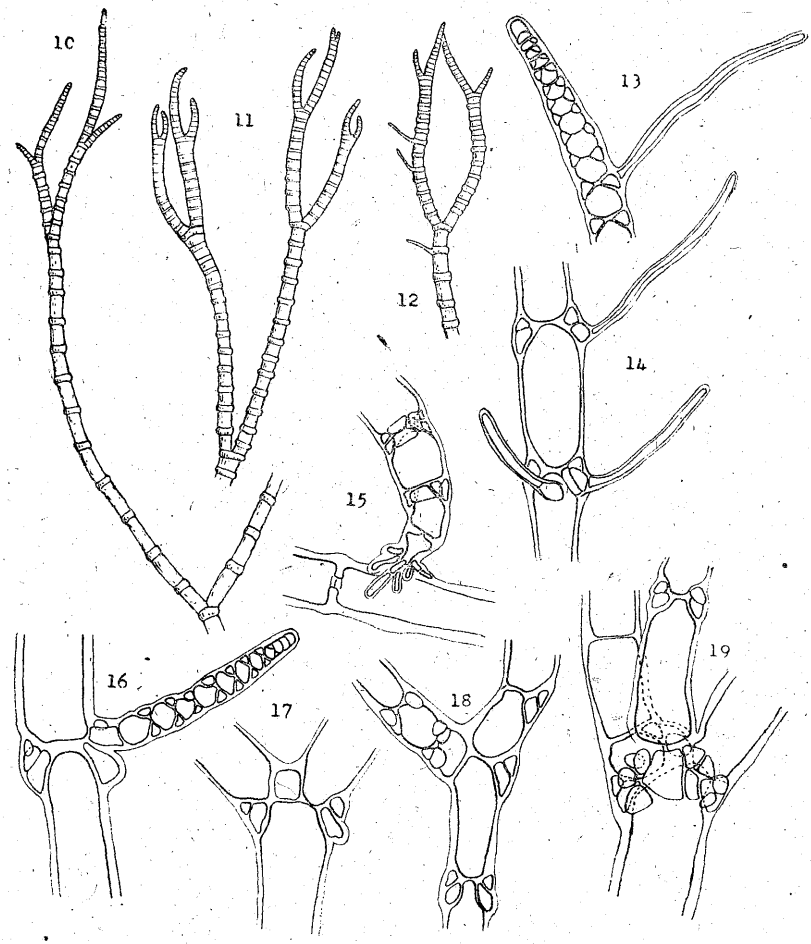
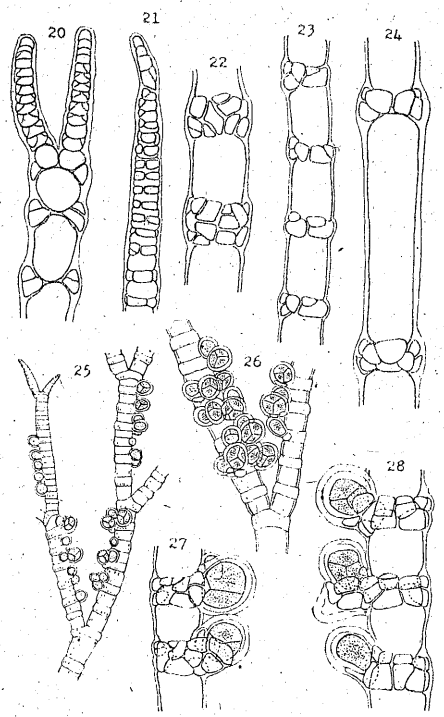
branching is as a rule subdichotomous, but trichotomous branchings as well as adventitious branchlets arising laterally from the lower node are also very rarely met



Figs. 10~19. *Ceramium cimbricum* Petersen. 10 & 11. Habit sketches of the end of branches. × 25. 12. Showing rhizoids from the upper girdles. × 25. 13. Showing a rhizoid from a subapical girdle. × 107. 14. Showing rhizoids from the lower girdles. × 107. 15. Basal portion of a filament attached to a cell of an *Antithamnion*. × 107. 16. An adventitious branch from the lower girdles. × 107. 17~18. Optical sections through the forcipating portions. × 107. 19. Showing a trichotomous portion. × 107.



Figs. 20～28. *Ceramium cimbricum* Petersen. 20. Optical section through the apical portion of a filament. × 107. 21. Surface view of a branch apex. × 107. 22. Surface view of three middle segments and two girdles. × 107. 23. Surface view of five middle segments and four girdles. × 107. 24. Three lower segments and two girdles. × 107. 25. Tetrasporiferous portion of a frond. × 25. 26. ditto. × 44. 27～28. Showing tetrasporangia naked or partly covered at the base by a few cortical cells. × 107.

with. The diameter of the filament is 15 μ at the apex, 24 μ at the subapical portion, about 60 μ in the middle, and up to 90～120 μ toward the base. Rhizoidal processes (cf. Petersen in Rosenvinge, loc. cit., fig. 318 C) are given off from some of the nodes, not only in the lower but also in the upper portions. They are usually unicellular but rarely bicellular. Neither hairs nor glandular cells have been met with.

While the specimens collected by the writer in August 1929 in Lake Tobuchi and in September 1943 at Kaiba-tô are all sterile, the ones collected by Mr. Shôsuke

Matsubara in July 1930 are fortunately found to be provided with abundant tetrasporangia. The sporangia are almost spherical, 60~70 (~75) μ diam., extruding, often secund on the inner (upper) side of the branches, single to several on each node, but sometimes they are whorled at the nodes. They are either entirely naked or partly covered at the base by a small number of the cortical cells. Sexual organs are not observed.

4. **Branchioglossum nanum** Inagaki in Scientific Papers of the Institute of Algological Research, Fac. Sci., Hokkaido Imp. Univ., 1 (1): 45, fig. 3, (1935).

Japanese name. *Hime-murasaki* (Inagaki).

Habitat. Epizoic on *Potamilla myriops* Marenz. Kaiba-tô (Tokida, Sept. 1943).

Distribution. Hokkaido and Saghalien.

The present minute red alga was found growing on the surface of the leathery organic tubes of a Polychaeta together with *Ceramium cimbricum* and *Antithamnion nipponicum* Yamada et Inagaki. The host animal, which has been kindly identified by Dr. Shirô Okuda on the writer's request as *Potamilla myriops* Marenzeller, was found to attach in groups firmly to the vertical surface of the rock, facing not to the open sea but to a canal filled with the constantly flowing seawater. The specimens of the alga at hand are sterile.

5. **Gymnogongrus Griffithsiae** (Turner) Martius, Flora Brasiliensis 1: 27 (1833) — J. Agardh, Sp. Alg. 2 (1): 316 (1851); ibid., 3 (1): 209 (1876) — Newton, Handbook of the British Seaweeds: 412, fig. 245 (1931) — Taylor, Synop. Mar. Alg. of Brazil in Rev. Algol. 5: 23, (1931); Mar. Alg. N. -E. Coast of N. America: 296 (1937)—Sinova, Alg. Petrov Isl. in 3 rd Hydrobiol. Exped. 1934, Japan Sea 1: 52, figs. 3 a, b, 1938.

Fucus Griffithsiae Turner, Historia Fucorum, 1: 79, pl. 37, (1803) —*Fucus tentaculatus* Bertoloni, Amaenitates Italicae: (295), pl. 5, fig. 8 (1819) —*Gymnogongrus Wulfeni* Zanardini, Ico. Phyc. Medit.- Adriat., 3, pl. 94 (1872).

"Plant in pulvinate tufts, from a basal disk, to 2~5 cm. tall, dark purplish; branches slender-filiform, little tapering, to about 0.3~0.7 mm. diam., the tips pointed or a little flattened; repeatedly branching, fastigiate-dichotomous, sometimes polychotomous; nemathecia scattered, at first unilateral and pulvinate on the lower side of the branches, later more extensive, about 1 mm. diam., plano-convex; sporangia generally imperfectly tetrapartite." (Taylor 1937, loc. cit. 296). (Figs. 29~31).

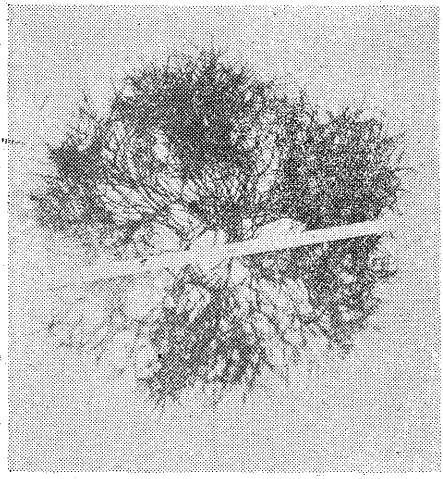


Fig. 29. *Gymnogongrus Griffithsiae* Martius
Aegagropiloid thallus of the plant. × $^{2}/_{3}$

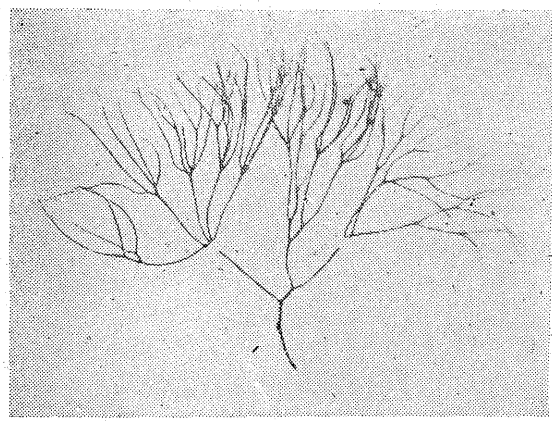


Fig. 30. *Gymnogongrus Griffithsiae* Martius
Part of a plant. ×$^{3}/_{4}$

Japanese name. *Ito-okitsunori* (n. n.)

Habitat. Growing in the sublittoral belt, entangled with the thallus of *Ahnfeltia plicata* var. *tobuchiensis*. Tôbuchi-ko (Tokida, July 1926, July 1935; Matsubara, 1930).

Distribution. Saghalien; Japan Sea coast of Siberia; Atlantic coasts of North and

Fig. 31. *Gymnogongrus Griffithsiae* Martius.
Group of branches. × 5/7

South America and of Europe; Mediterranean Sea; Adriatic Sea.

The Saghalien plant, which the writer refers to the present species, has been collected only in Lake Tôbuchi, where it was always found detached from the substratum and entangled with *Ahnfeltia plicata* var. *tobuchiensis*. A fresh specimen of the plant is apt to be taken for a thicker form of the last mentioned alga, from which it differs, however, in having less cartilagineous frond of lighter reddish color and in being composed of larger cells especially in the medullary tissue. When dried on paper, it turns partly to dark color but not so deep black as *Ahnfeltia* usually does.

The height of our plant is up to about 8 cm., while Newton (*loc. cit.*, p. 412) describes the British plant as being 2.5~7.5 cm. high and Sinova (*loc. cit.*, p. 52) her plant from Petrov Island to be 2~5 cm. high. The branches are generally filiform and not beyond 0.5 mm. in diameter, cylindrical but not rarely more or less compressed in the subapical portions, especially below the forkings, reaching nearly 1 mm. in breadth. Our Saghalien plant is of a frond more frequently compressed than in the typical form of *G. Griffithsiae* and in this respect it possibly approaches to *G. Wulfeni* Zanard., which has been considered since J. Agardh (1876, loc. cit.) as a compressed form (*f. compressa*) of *G. Griffithsiae*. The terminal branch is either long filiform, simple, and tapering toward the tip, or comp-

ressed, slightly broadened near the apex ending with 2 to 4 forcipate or palmate, short subulate segments.

Unfortunately, neither nemathecia nor cystocarps are found in the writer's specimens. It seems to propagate in the lagoon wholly by the vegetative division of the thallus.

3. **マツバライギス**（新稱）はイギス屬の一種で，樺太の遠淵湖と海馬島で他の海藻や動物（エラコの棲管）の上に着生するのが見出された。Denmark から報告の *Ceramium cimbricum* Petersen に同定され，中村義輝氏によれば室蘭にも産すると云う。體は極めて纖細で節部の皮層細胞の作る帶の幅は極く狹い。原記載には生殖器官未詳とあるが，四分胞子を發見したのでその記載を與へた。和名は成熟標本の採集者，松原庄介氏（前樺太寒天會社養殖研究所員）の名を記念したもの。

4. **ヒメムラサキは**稻垣貫一氏（1935）が忍路で發見した新種（コノハノリ科）で室蘭にも知られたが（日本海藻誌 760頁）樺太海馬島でエラコの棲管表面に着生する未熟の個體を採集した。

5. **イトオキツノリ**（新稱）はオキツノリ屬の一種で幅が頗る狹く，樺太遠淵湖内にイタニグサと混じて見出され，時にまぎらわしいことがある。乾燥すれば前者は殆ど黑色になるが本種は餘り黑くならず，殊に枝の先は淡紅色であることが多いので識別は容易である。大西洋，地中海に分布する種で，近頃 Sinova 女史（1938）により沿海州の Petrov 島から報告された。遠淵湖では結實標本は採集出來なかつた。恐らくイタニグサ同樣，榮養繁殖のみを行ふのではあるまいかと思ふ。

○ サヽゲの花とフジの莢果（久内清孝）

昨夏氣がついたことだが，朝みごとにサヽゲの花が咲いて居たので，歸りに失敬しておしばにするつもりで居た。ところが歸りが午後になつたら，朝見たものは見るかげもなかつた。其後，會津農書を見て居たら「朝ひらき夕をまたぬさゝげ類半日もちて落る花ふさ」と云ふ農歌がのつて居た。

フジ棚に長いこと實がぶらさがつて居た。いつになつたら，裂けるかと思つて居たがなかなか裂けない。ことによると不稔性のものかと考へたこともあつた。ところが節分の頃どれもま二つに裂けて，種子を散らした。氣象關係と若干のつながりがあるかも知れないが，東京と千葉縣の津田沼とでは，同時であつたから，少くとも關東平地では，その頃裂開するものと思はれる。あんな堅いのが，われるのだから，注意したら音が聞えるに違ひない。われた兩半の各片の內面は眞白で美事である。こんな平凡なことを今迄知らなかつたのは恥しいが，見たまゝをしるしておく。